

IN THE CLAIMS:

1. (Currently Amended) A driving method for a solid-state image sensing device having a plurality of sensor portions ~~being disposed~~ arranged two-dimensionally in a horizontal and a vertical directions, and a vertical charge transfer portion ~~being disposed between~~ adjacent said plurality of sensor portions ~~and being provided with transfer electrodes of a plurality of systems disposed along its disposed direction~~, comprising the steps of:

selectively applying high level driving pulses to groups of said transfer electrodes ~~of said plurality of systems in respective sectional periods~~ in a vertical transfer period; and

transferring ~~the~~ signal charges read out from said plurality of sensor portions in the vertical direction;

wherein a ~~sectional period in~~ during a vertical transfer operation period, in which the number of ~~systems of said~~ groups of transfer electrodes ~~to be applied with~~ receiving high level driving pulses becomes minimum is ~~set~~ longer than that of ~~the~~ other ~~sectional~~ periods.

2. (Currently Amended) A driving method for a solid-state image sensing device according to claim 1, ~~having wherein said~~ individual groups of transfer electrodes ~~of said plurality of systems being composed of are correspondingly associated with~~ four systems and the vertical transfer period ~~being is~~ divided into eight ~~sections~~ from periods t1 through t8, wherein ~~sectional~~ periods t2, t4, t6 and t8, ~~those~~ in which the number of ~~systems~~ groups of said transfer electrodes ~~to be applied with the~~ receiving high level driving pulses ~~becomes is~~ two, are ~~set~~ longer than the ~~sectional~~ periods t1, t3, t5 and t7, ~~those~~ in which the number of ~~systems~~ groups of said transfer electrodes ~~to be applied with~~ receiving said high level driving pulses becomes three.

3. (Currently Amended) A driving method for a charge transfer device having a charge transfer portion ~~being formed of~~ and transfer electrodes of a plurality of systems different groups disposed in the charge transfer direction, comprising the steps of:

selectively applying a high level driving pulse to said transfer electrodes ~~of said plurality of systems in respective sectional periods~~ in a transfer period; and

transferring signal charges in a charge transfer portion;

wherein a ~~sectional~~ period during a charge in said transfer operation period, in which the number of groups systems of said transfer electrodes receiving ~~to be applied with~~ high level driving pulses becomes minimum is ~~are set~~ longer than ~~that of the~~ other sectional periods.

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4. (Currently Amended) A driving method for charge transfer devices according to claim 3, ~~having said~~ wherein the groups of transfer electrodes ~~of said plurality of systems being composed of~~ are correspondingly associated with four systems and the vertical transfer ~~period being~~ operation is divided into eight periods sections from t1 through t8, wherein the sectional periods t2, t4, t6 and t8, ~~those~~ in which the number of systems groups of said transfer electrodes ~~to be applied with the~~ receiving high level driving pulses is ~~becomes~~ two, are set longer than the sectional periods t1, t3, t5 and t7, ~~those~~ in which the number of systems groups of said transfer electrodes ~~to be applied with~~ receiving high level driving pulses is ~~becomes~~ three.

5. (Currently Amended) A charge transfer device having a charge transfer portion ~~being formed of~~ with transfer electrodes ~~of a plurality of systems disposed in the charge transfer direction;~~

wherein high level driving pulses are selectively applied to different groups of said transfer electrodes ~~of said plurality of systems~~ in respective time sectional periods ~~in~~ during a charge transfer operation period;

signal charges in ~~a~~ the charge transfer portion are transferred; and

a sectional period in a charge transfer operation period, in which ~~a~~ the number of ~~systems~~ groups of said transfer electrodes ~~to be applied with~~ receiving high level driving pulses becomes minimum is ~~set~~ longer than that of the other sectional periods.
